



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/629,146	07/29/2003	James Ruion Young Rawson	RD-29279	6569
6147	7590	11/06/2006	EXAMINER	
GENERAL ELECTRIC COMPANY GLOBAL RESEARCH PATENT DOCKET RM. BLDG. K1-4A59 NISKAYUNA, NY 12309			PATEL, RITA RAMESH	
			ART UNIT	PAPER NUMBER
			1746	

DATE MAILED: 11/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/629,146	Applicant(s) RAWSON ET AL.	
	Examiner Rita R. Patel	Art Unit 1746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 July 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 and 30-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 and 30-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date: _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>7/25/06</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Applicant's Remarks / Amendments

This Office Action is responsive to the amendment filed on 7/25/06. Claims 26-29 have been canceled. Claims 1-25 and 30-32 are pending. Claims 1, 2, 9, 21, 23, and 32 have been amended.

Applicant's arguments have been considered, but are not persuasive. Thus, claims 1-25 and 30-32 are finally rejected for the reasons of record.

35 USC § 112 second paragraph rejections over claims 2 and 23 have been overcome due to applicant's amendments filed on 7/25/06.

In independent claim 1 applicant uses open claims language by the recitation of the word "comprising". The use of the term "comprising" to introduce the claimed structure means that the device covered by these claims may involve many more elements than those positively recited. *Ex parte Gottzein et al.*, 168 USPQ 176 (PTO Bd. App. 1969). It is well settled that the terms "comprising" and "containing" do not exclude the presence of other limitations than the one or ones recited, and that a claim reciting those limitations can properly be rejected on a reference disclosing them and additional limitations. *Ex parte Muench*, 79 USPQ 92 (PTO Bd. App. 1948). Applicant's arguments on page 9 in the Remarks/Arguments filed 7/25/06 claim that applicant's apparatus and method do not use a distillation process for purification and reclamation

Art Unit: 1746

of solvent, unlike the Berndt reference. However, it is not limited by the open claims language used by applicant that a distillation process is not included; and secondly, there is no negative recitation of using a distillation process in applicant's claims. Albeit the Berndt reference teaches a distillation process, this feature of Berndt is *not relied on* in the rejection of applicant's claims. The Berndt reference has been provided to anticipate and obviate particular components of applicant's claims as provided explicitly herein, however, not every single element of Berndt is cited in the rejection over applicant's claims. Examiner is not relying on the distillation of Berndt to render anticipation or obviousness on applicant's claims.

Evidence by applicant must be reasonably commensurate in scope with the claimed invention. See, e.g., *In re Kulling*, 897 F.2d 1147, 1149, 14 USPQ2d 1056, 1058 (Fed. Cir. 1990); *In re Grasselli*, 713 F.2d 731, 743, 218 USPQ 769, 777 (Fed. Cir. 1983). Applicant's argument's are not commensurate in scope and thus, are not persuasive.

Moreover, applicant disagrees with the position that Berndt's statement that "any type of cartridge, discs, flex-tubular or rigid-tubular filtration system may be used either individually or in combination" would read on applicant's ultrafiltration filter. However, applicant fails to provide reasons for showing how the teaching of Berndt may not read on applicant's claims. Applicant fails to show any deficiency in Berndt's teaching over these ultrafiltration filters; applicant solely states on the record that applicant disagrees

Art Unit: 1746

with this interpretation. Henceforth, the Office maintains its position that any type flex-tubular or rigid-tubular filtration system of Berndt reads on applicant's claims for an ultrafiltration filter.

Finally applicant submits that it would have been obvious to one of ordinary skill in the art at the time of the invention to not have been obvious to optimize the mesh size, pore size and/or passable molecular weight for the filter(s) disclosed in Berndt since Berndt utilizes a distillation process that already removes contaminants and there would therefore be no motivation or suggestion to modify Berndt's existing particulate filter(s) by decreasing pore size. Firstly, it is reiterated by the Office that Berndt's teaching of a distillation system is not relied upon in the rejection over applicant's claims. Secondly, Berndt *does teach using a particulate filter* which is wholly capable of filtering particulates therefrom; as conceded in applicant's Remarks/Arguments, pg. 10, line 25. Third of all, distillation processes do not render the use of filters in combination with them to be ineffectual. Distillation processes are known in the art for removing contaminants but often can not remove 100% of the contaminants in a single process, as fully anticipated by Berndt's clear use of a distillation system in combination with a particulate filter. Fourth, the modification of decreasing pore size of a filter for removing contaminants therein is commonly known in the art of cleaning. It is known that by decreasing the pore size of a filter, an increased amount of unwanted contaminants can be removed therefrom. Thus, rendering applicant's argument that there would be no motivation to use a filter in Berndt because Berndt uses a distillation process moot.

Applicant claims that Berndt does not teach or fairly suggest the use of an ultrafiltration filter having a pore size of about 0.01 microns to about 0.2 microns, nor the use of a flushing device to flush such an ultrafiltration filter and thus claim 2 is allowable. However, in the prior Office Action it was taught that Berndt discloses the claimed invention except for a specific mesh size, pore size or operability relative to molecular weight for the ultrafiltration, particulate or mechanical filters, however, it would have been obvious to one having ordinary skill in the art at the time the invention was made to optimize the mesh size, pore size and/or passable molecular weight for said filter, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). Applicant's claimed features are regarded as result effective variables because as the filter's mesh size, pore size or molecular weight capacity are attuned the filter will applicably allow more or less of the solution to pass there through, therefore, depending on the desired filtering expectations these features may be optimized. Also, Berndt in further combination with Dayton teach a flushing device. It would have been obvious to one of ordinary skill in the art at the time of the invention to use a flushing device in Berndt, as shown by Dayton, to achieve increased filtering functions by way of refreshing the filtering device.

Art Unit: 1746

Similarly, for the reasons provided in the Office Action herein and the above responses to applicant's remarks/arguments, the Office maintains its rejections over claims 1-25 and 30-32.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3-4 and 6-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Berndt et al. (US Patent No. 6,063,135) herein referred to as "Berndt".

Berndt teaches a dry cleaning system in which dry cleaning machinery is used with solvent in combination with an organic and/or organo-silicone based detergent which is specifically tailored for working in conjunction with the solvent to afford optimal cleaning. The method comprises loading articles into a cleaning basket; agitating the articles in the solvent and detergent composition in which they are immersed; removing most of the solvent and detergent composition; centrifuging the articles; heating the articles and remaining composition and creating vapors, condensing vapors and optionally reducing the pressure to dry the articles, recovering and recycling solvent and removing the articles from the basket after cooling the articles (Abstract). The position is taken that one of ordinary skill in the art would at once envisage that the agitation,

Art Unit: 1746

centrifuging, heating, condensing and recovery/recycling steps taught by Berndt is anticipatorily automated by means of a controller. During the cleaning cycles the solvent and the detergent mixture is pumped out of the basket through a "button trap" and then across a filter, the filter system helps to remove the particular and impurities from the mixture; this reads on applicant's claim for a particulate filter. Moreover, Berndt discloses that any type of cartridge, discs, flex-tubular or rigid-tubular filtration system may be used either individually or in combination (col. 8, lines 36-38); this reads on applicant's claims for ultrafiltration filters, singular cartridge filters and combinational cartridge filters. Said cartridge filter may further comprise an additive such as diatomaceous earth (col. 8, lines 38-40).

Berndt discloses the claimed invention except for a specific mesh size, pore size or operability relative to molecular weight for the ultrafiltration, particulate or mechanical filters, however, it would have been obvious to one having ordinary skill in the art at the time the invention was made to optimize the mesh size, pore size and/or passable molecular weight for said filter, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). Applicant's claimed features are regarded as result effective variables because as the filter's mesh size, pore size or molecular weight capacity are attuned the filter will applicably allow more or less of the solution to pass there through, therefore, depending on the desired filtering expectations these features may be optimized.

Art Unit: 1746

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Berndt as above, and further in view of Dayton (US Patent No. 4,793,938).

Berndt teaches the claimed invention except for a flushing device. However, Dayton discloses an apparatus for decontaminating dry cleaning fluid and filters such that the dry cleaning fluid is forced through a filter means in a direction opposite to the single direction of flow in the recirculation loop, the dry cleaning is forced out of the filter housing to flush contaminants from the dry cleaning filter means (col. 3, lines 18-22); this reads on applicant's claims for a flushing device. It would have been obvious to one of ordinary skill in the art at the time of the invention to use a flushing device in Berndt, as shown by Dayton, to achieve increased filtering functions by way of refreshing the filtering device.

Claims 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Berndt as applied to claim 4 above, and further in view of Rasmussen (US Patent No. 6,857,162).

Berndt teaches the claimed invention except for an ultrafiltration membrane of a spiral configuration. Rasmussen teaches a cleaning and/or treatment device wherein a filter unit comprises at least one cross-flow filter whereby said filter preferably is a membrane filter (Abstract). The membrane filter disclosed by Rasmussen is preferably packed in a flat, spiral would, tubular fiber configuration (col. 5, lines 17-18). Rasmussen's disclosure may read on an article cleaning apparatus, hence, this reads on applicant's claims wherein said ultrafiltration membrane is a spiral would

Art Unit: 1746

configuration. It would be obvious to one of ordinary skill in the art at the time of the invention to incorporate a spiral ultrafiltration membrane in Berndt, as shown by Rasmussen, to achieve desirable filtering means.

Claims 13-16, 18-22-25 and 30-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Berndt further in view of Dayton, as taught above.

Berndt teaches the claimed invention except for a regeneration device and a clean fluid device. However, Dayton teaches a system for purging contaminants from dry cleaning fluid used in a machine for dry cleaning clothing while concurrently decontaminating the filter cartridges through which the dry cleaning fluid is passed through a circulating loop and a plurality of filter cartridge housings. A portion of the dry cleaning fluid in the selected housing is then vaporized within the filter housing while another portion is forced in liquid form through the filter cartridges in a direction opposite to the flow in the recirculation loop. This liquid portion is passed to a separate boiler for vaporization; the vaporized dry cleaning fluid from both the filter housing and the boiler is condensed and passed to a gravity separator, where water is separated from the dry cleaning fluid. The dry cleaning fluid is then returned to the recirculation loop (Abstract). Hence reading on applicant's claims for a regeneration device and clean fluid device. It would be obvious to one of ordinary skill in the art at the time of the invention to use a regeneration and clean fluid system in Berndt, as shown by Dayton, with expectation of improving cost efficiency, increased operative use of the working fluid, minimizing waste, and for environmental reasons.

Claims 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Berndt and Dayton as applied to claim 16 above, and further in view of Rasmussen which is applied here for the same reasons as given above for claim 5.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Art Unit: 1746

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rita R. Patel whose telephone number is (571) 272-8701. The examiner can normally be reached on M-F: 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr can be reached on (571) 272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RRP



MICHAEL BARR
SUPERVISORY PATENT EXAMINER